PATENT
Docket No. 1002.2.72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Larry Stevens	)
		)
Serial No.:	09/228,325	)
		) Group Art
Filed:	January 11, 1999	) Unit: 3711
		)
For:	SYSTEM AND METHOD FOR BONDING AN ACRYLIC SURFACE TO A FRAME	)
		)
Examiner:	Michael Chambers	)

DECLARATION OF JERRY WARD UNDER 37 C.F.R 1.132

Assistant Commissioner
for Patents
Washington, D.C. 20231

Dear Sir:

I, Jerry Ward, hereby declare:

1. I am the Manager of Boards, Silk Screen, and Materials at Lifetime Products, Inc. (hereinafter "Lifetime Products"). I have been employed by Lifetime Products for about 6.5 years. During that time I have gained experience relating to purchasing of materials, welding, assembly, and testing of basketball backboards. I am familiar with all aspects of Lifetime Products' manufacture and testing of acrylic basketball backboards.

2. Lifetime Products currently manufactures acrylic basketball backboards by bonding an acrylic backboard to a backboard frame structure using a catalyzed elastomeric adhesive sandwiched between the frame and the backboard. This procedure is disclosed in the above-identified patent application.

3. Lifetime Products began manufacturing and selling acrylic basketball backboards in 1993 using two-sided foam tape to secure acrylic basketball backboards to a backboard frame. Although two-sided tape performs adequately at typical outdoor playing temperatures, some backboard failures were observed when used under cold, winter-like conditions. Lifetime

Products developed the new catalyzed elastomeric adhesive bonding system to efficiently fabricate acrylic basketball backboards that are more durable in cold conditions.

4. A basketball impact test was developed by Lifetime Products to determine the durability of acrylic backboards. According to the basketball impact test, basketballs, inflated to a pressure of 8 psi, are launched at the backboard assembly at a throwing speed of 35 mph (miles per hour). A radar gun is used to monitor the throwing speed.

5. In the basketball impact test, 75 balls are thrown at the backboard at ambient temperature. The balls are thrown over the entire backboard surface as follows:

10 balls - left edge of the board over the steel frame area;
10 balls - left middle support over the steel frame area;
10 balls - left target window area;
10 balls - right target window area;
10 balls - right edge of the board over the steel frame area;
10 balls - right middle support over the steel frame area;
10 balls - center target window area;
5 balls - random areas of the backboard.

6. After each ball impact, the backboard was examined for failure. Failure is defined as backboard (acrylic cracking) or frame damage, adhesive separation from the metal frame, adhesive separation from the acrylic backboard, and cohesive failure where the tape or adhesive splits down the middle.

7. Each backboard that passed 75 hits at ambient temperature was placed inside a freezer for a minimum of two hours. The backboard was removed from the freezer and quickly mounted for further impact testing. An infrared thermometer monitored the temperature of the board until it reached 30 degrees F. Whereupon, basketballs were thrown at the backboard at 35 mph as described above.

8. At ambient temperatures, backboards fabricated with catalyzed elastomeric adhesive performed as good as or better than backboards fabricated using 3M tape and Norton tape.

9. Backboards fabricated using 3M tape failed after an average of 13.8 hits under cold temperature conditions. Backboards fabricated using Norton tape failed after an average of 47.4 hits under cold temperature conditions. Backboards fabricated using a catalyzed elastomeric adhesive failed after an average of 71.6 hits under cold temperature conditions.

10. The basketball impact test results mentioned above, combined with the torque deflection test described in the specification at pages 9 and 10, demonstrate that backboards

fabricated using catalyzed elastomeric adhesive possess overall better adhesion, flexibility, and durability than conventional double-sided tape.

11. As Manager of Boards, Silk Screen, and Materials, I am aware of the materials and manufacturing costs associated with fabricating acrylic basketball backboards. Lifetime Products saves approximately $3 per backboard in materials costs for each acrylic backboard fabricated using catalyzed elastomeric adhesive instead of conventional two-sided tape. In the year 2000, Lifetime Products manufactured approximately 300,000 acrylic backboard basketball systems. This represents a materials cost savings of about $900,000. In the year 2001, Lifetime Products is projected to manufacture approximately 400,000 acrylic backboard basketball systems. This represents a materials cost savings of about $1,200,000.

12. There are very significant labor savings when acrylic backboards are fabricated using catalyzed elastomeric adhesive. Using twelve (12) people in three shifts, about 2400 acrylic backboards may be fabricated per day using the catalyzed elastomeric adhesive process. In contrast, twenty-four (24) people in three shifts are required to fabricate 1800 acrylic backboards using the conventional two-sided tape system. This represents labor savings of about 62.5%.

13. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated this 31 day of August, 2001

Jerry Ward